

Species Status Assessment

Common Name	Reznicek's sedge	Date Updated:	2024-03-21
Scientific Name	<i>Carex reznicekii</i>	Updated By:	Richard M. Ring
Family	Cyperaceae		

Species Synopsis (*a short paragraph which describes species taxonomy, distribution, recent trends, and habitat in New York*)

Reznicek's sedge is a perennial graminoid (grass-like) in the sedge family, part of the section *Acrocystis* within the genus *Carex*. There are 230 *Carex* species in New York, with 11 in section *Acrocystis* (all of them native). *Carex reznicekii* was first described and recognized as distinct in 2006, having previously been mistaken for *Carex nigromarginata* or *Carex umbellata* (Werier 2006). It is a southern species reaching its northeastern limit in southern NY and adjacent New England, also ranging south and west to Georgia and Missouri. In NY as elsewhere in its range, it occurs in dry mesic to mesic forests dominated by oak and hickory species. As a recent addition to the flora, long-term trends are unknown, though based on limited data the populations at the known sites appear to be stable (NYNHP 2023). There are four known extant populations in NY, totaling around 700 plants, and one extirpated historical record from New York City. (NYNHP 2024). Invasive shrub and herb species, and loss of forest canopy are threats to the habitat of Reznicek's sedge in the state. Additional surveys are needed to determine whether more populations are present, especially since the habitat is relatively common in southeastern NY (NYNHP 2024).

I. Status

a. Current legal protected Status

i. Federal:		Candidate:
ii. New York:	<u>Endangered</u>	

b. Natural Heritage Program

i. Global:	<u>G5</u>		
ii. New York:	<u>S1S2</u>	Tracked by NYNHP?	On Active Tracking List

Other Ranks:

COSEWIC: Not listed in Canada
IUCN Red List: Not assessed by IUCN Red List

Status Discussion:

Carex reznicekii is Endangered in New York (Ring 2023). There are only six extant and one historical population known from the state, all from Long Island and the Hudson Valley. This species is near the northeastern edge of its known range in New York, with a few populations known from adjacent southern Connecticut and Rhode Island. There are an estimated 700 plants total, the vast majority of these from a single large population on Long Island. Reznicek's Sedge occurs in dry-mesic oak-hickory forests, which is a relatively common habitat in NY. It also only easily identifiable when fruiting in May, is a rather inconspicuous plant, and was only first described as species in 2006. For these reasons, the species may be more common in NY (and elsewhere) than current records indicate. Long-term trends are unknown, but based on limited survey data, the short-term trend suggests that the known populations are stable (NYNHP 2023).

II. Abundance and Distribution

Region	Present?	Abundance	Distribution	Time Frame	Listing status or S-Rank	SGCN?
North America	Yes	Unknown	Unknown	Unknown		
Northeastern US	Yes	Unknown	Unknown	Unknown		
New York	Yes	Unknown	Unknown	Unknown	E	
Connecticut	Yes	Unknown	Unknown	Unknown	S1	
Massachusetts	No	-	-	-		
New Jersey	Yes	Unknown	Unknown	Unknown	S2	
Pennsylvania	Yes	Unknown	Unknown	Unknown	S3	
Vermont	No	-	-	-		
Ontario	No	-	-	-		
Quebec	No	-	-	-		

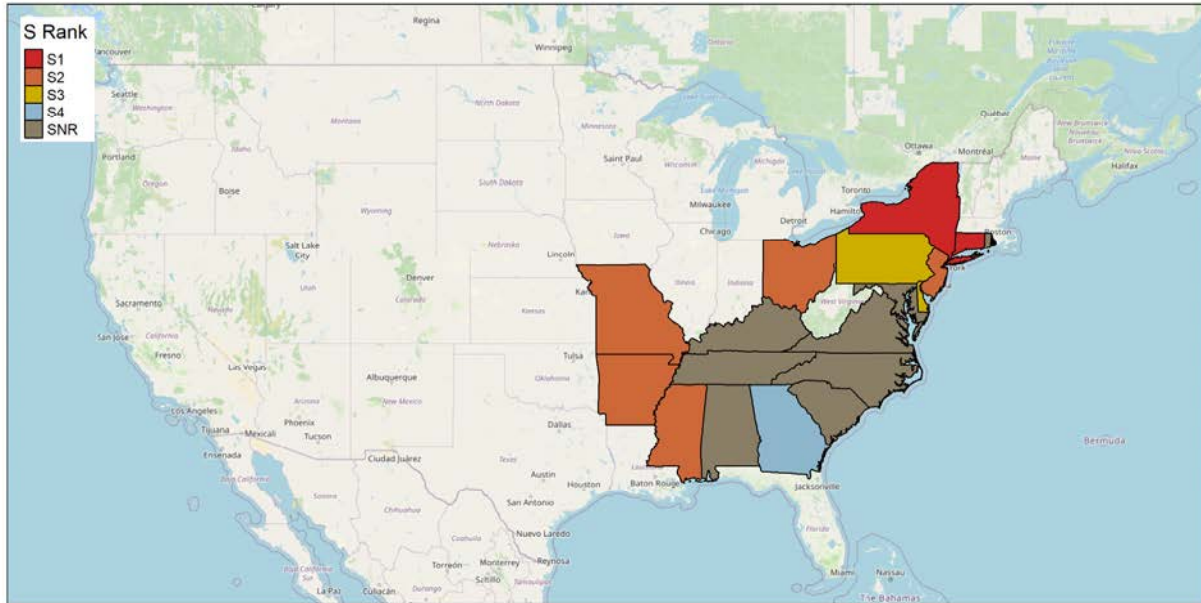


Figure 1. *Carex reznicekii* North American distribution.

Percent of North American Range in NY	Classification of NY Range	Distance to core population, if not in NY
1-25%	Peripheral	500 km

III. NY Rarity and Trends

Trends Discussion

Carex reznicekii's Sedge was first described as a new species by David Werier in 2006 (Werier 2006). Accordingly, long-term trends are unknown, and short-term trends are only beginning to be understood. The known populations which have been revisited by NYNHP staff appear to be stable and persistent. Additional searching in the appropriate dry-mesic forest habitats of southeastern NY may result in the discovery of new populations.

Details of Historic and Current Occurrence

Carex reznicekii is currently known from Suffolk County on Long Island and from Orange and Ulster Counties in the Hudson River Valley. There are an estimated 700 plants total, the majority from a single large population on Long Island. There is also a single historical record from Manhattan. With abundant good habitat in the state, additional survey work is needed to determine this species' range in New York, particularly elsewhere in the Hudson Valley. The historic extent and abundance of the species is not well understood, as the species was first described in 2006 (Werier 2006, NYNHP 2023).

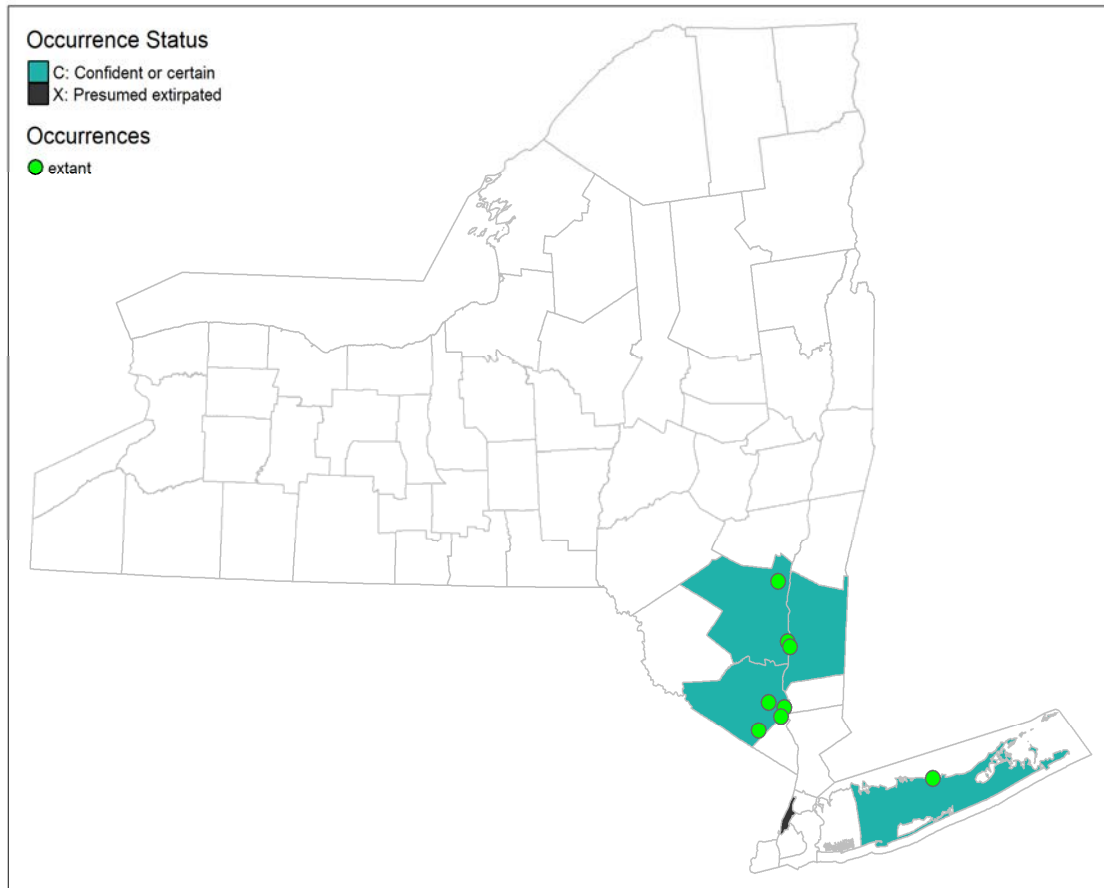


Figure 2. NYS distribution for *Carex reznicekii*

Table 1. Number of records (element occurrences) of *Carex reznicekii* grouped by the dates known to be extant (the years spanning first observation to last observation) and the number and percent of total of USGS 7.5 minute map quadrangles these observations fall within for New York State.

Years	# of Records	# of distinct quads	% of quads in State
Pre-1995	0	0	0.0
1995-2004	0	0	0.0
2005-2014	4	4	0.4
2015-2023	4	3	0.3

Monitoring in New York

Four of the six known extant population occur in state forests or state parks, and are monitored every five to 10 years. The remaining two populations are not regularly monitored.

IV. Primary Habitat or Community Type (from NY crosswalk of NE Aquatic, Marine, or Terrestrial Habitat Classification Systems):

Northeastern Terrestrial Habitat Classification Macrogroup: Northern Hardwood and Conifer, Oak – Pine Forest.

NY Natural Heritage Communities: Appalachian oak-hickory forest, Coastal oak-heath forest, Appalachian oak-pine forest, Coastal oak-holly forest, Oak-tulip tree forest, Pitch pine-oak forest (Edinger et al. 2014).

Habitat or Community Type Trend in New York

Declining: **Stable:** **Increasing:** **Unknown:** ✓
Time Frame of Decline/Increase:
Habitat Specialist **Yes:** ✓ **No:**

Habitat Discussion:

In New York *Carex reznicekii* grows predominately in mature mesic to dry-mesic forests with rocky, shallow soils, and often without a dense shrub layer. It may prefer more calcareous, shaded, and lower-slope sites than the closely related *Carex nigromarginata*, although the two species’ habitats overlap (New York Natural Heritage Program 2009, Werier 2006). Oaks are the dominant canopy trees at the known New York sites, along with hickories, and other *Carex* species of section *Acrocystis* are usually also present (NYNHP 2024). It “often occurs on slopes above drainages from the bases of the slopes to mid-slopes and occasionally on the upper slopes or crests” (Werier 2006).

V. Species Demographics and Life History (include information about species life span, reproductive longevity, reproductive capacity, age to maturity, and ability to disperse and colonize):

Carex reznicekii is a densely clumping, evergreen perennial graminoid (grass-like) plant. Like all *Carex* species, it is pollinated by wind. The seeds of several closely related species of *Carex* section *Acrocystis* are dispersed within forests by ants (Handel 1978), although this has not been observed for *Carex reznicekii* specifically. The longevity of this species has not been studied, although populations monitored by NYNHP have persisted at least twelve years. The natural history and demographics of *Carex reznicekii* has not been studied since its recent description as a species in 2006.

Table 2. Phenology of *Carex reznicekii* in New York (NYNHP 2023).

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Fruiting												

Werier, David, Kyle Webster, Troy Weldy, Andrew Nelson, Richard Mitchell, and Robert Ingalls. 2023 New York Flora Atlas. [S. M. Landry and K. N. Campbell (original application development), USF Water Institute. University of South Florida]. New York Flora Association, Albany, New York. [Accessed 11/21/2023].

Additional references:

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Edinger, G. J., D. J. Evans, S. Gebauer, T. G. Howard, D. M. Hunt, and A. M. Olivero (editors). 2014. Ecological Communities of New York State. Second Edition. A revised and expanded edition of Carol Reschke's Ecological Communities of New York State. New York Natural Heritage Program, New York State Department of Environmental Conservation, Albany, NY.

Gleason, Henry A. and A. Cronquist. 1991. Manual of Vascular Plants of Northeastern United States and Adjacent Canada. The New York Botanical Garden, Bronx, New York. 910 pp.

Handel, S.N. 1978. On the competitive relationship of three woodland sedges and its bearing on the evolution of ant-dispersal of *Carex pedunculata*. *Evolution*, **32**; pp. 151-163.

Holmgren, Noel. 1998. The Illustrated Companion to Gleason and Cronquist's Manual. Illustrations of the Vascular Plants of Northeastern United States and Adjacent Canada. The New York Botanical Garden, Bronx, New York.

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Werier, David A. 2006. *Carex reznicekii*, a new widespread species of *Carex* Section *Acrocystis* (Cyperaceae) from eastern North America. *SIDA* 22(2): 1049-1070.